CAC
CAIRO AMERICAN COLLEGE
EGYPT

Name: _____Date : _____

IM2 Unit 2 Quiz – Basics of Co-ordinate Geometry
Teacher: Mr. Santowski

Score:_____

PART 1 – CA Short Answer QUESTIONS

SHOW ALL WORK AND WRITE ALL ANSWERS IN THE SPACES PROVIDED.

Maximum marks will be given for correct answers. Where an answer is wrong, some marks may be given for correct method, provided the answer is supported by written working.

1. For the line segment connecting the points A(-1, -2) and B(-7, 10);

(Total 8 marks)

   a. Make a sketch, showing the two points and the line segment; *[2]*

   b. Find the distance between the two points; *[2]*

   c. Find the midpoint between the two points; *[2]*

   d. If this line segment represented the diameter of a circle, write the equation of this circle. *[2]*

2. A circle centered at the origin goes through the point H(-4,7). Determine:

(total 9 marks)

a. the equation of this circle; *[4]*

b. the *y*-intercept(s) of this relation; *[2]*

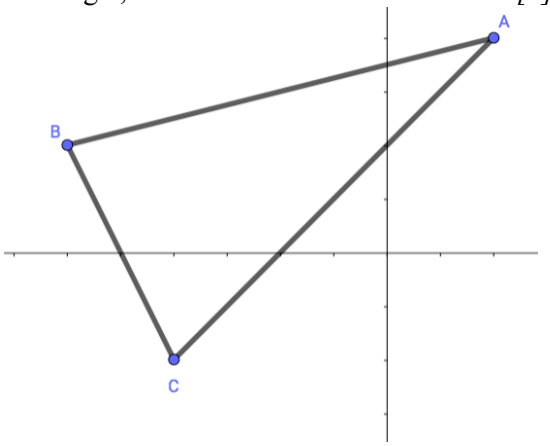
c. the value of *y* when *x* = -2 for this circle. *[3]*

PART 2 - CA Extended Response QUESTIONS

1. A triangle, ΔABC has vertices at A(2,4), B(-6,2) and C(-4,-2). Two copies of this triangle are provided for you.

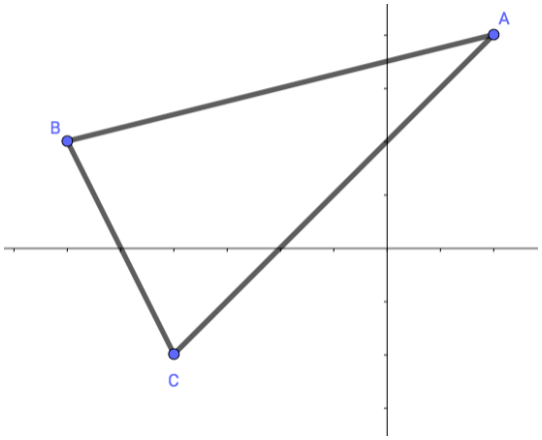
(total 15 marks)

a. On the first copy of this triangle, draw the median from vertex A. *[2]*



b. Determine the length of this median. *[4]*

c. On the second copy of this triangle, draw the perpendicular bisector of side AB. *[2]*



d. Determine the equation of this perpendicular bisector. *[4]*

e. What type of triangle is this – scalene, isosceles or equilateral? Provide mathematical evidence to justify your answer. *[3]*

BONUS Question (Time permitting) NOTE: This question is GEOGEBRA ACTIVE, although you must write down the **relevant supporting evidence** (and/or take a picture with your phone and share it with me)

f. Which side of the triangle is "closest to" the point D(-3.5, 1)?